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RE: Robert G. VENNARD, Justin L. TREMBLAY and Miles M.E. EVANS
U.S. Patent Appln. No. 10/630,327 filed July 30, 2003
MATERIALS MOVING BLADE
Our ref: DEGMAN P06AUS

Dear Scott:

Further to our discussions with respect to filing a divisional application from U.S. patent application 10/630,327 for a materials moving blade, we enclose 38 new claims to be filed in the divisional. Based upon the potential and continuing infringement of this Degelman invention, we believe these claims provide thorough subject matter coverage against such "design arounds" as in the case of JRB.

These claims are currently broader than those indicated as allowable in the parent case. The key with the divisional application is to get claims allowed definitively covering not only the current JRB "design around" but also other "design arounds" as well.

Claims 1-8 are very broad and relate only to a metal reinforcement. Claims 9-13 are similar to claims 1-8, however here the reinforcements are included on a materials moving blade. Claims 14-19 are specifically aimed at JRB's current "design around" support gusset. Claims 21-24 are also aimed at JRB and are slightly broader. Claims 25-28 are a method of making the present invention, and claims 29-38 are alternatives which describe the materials moving blade and support in substantially different language than the previous claims.

We kindly ask that you review these claims, in particular independent claims 1, 9, 14, 20, 25, 29 and 36, and call to discuss at your earliest convenience. The divisional application should be filed before issuance of the parent case which in any event has not occurred yet, so there is no rush to file these new claims. As always, if you have any comments or concerns with respect to this matter, please do not hesitate to contact our office.

Yours sincerely,
DAVIS & BUJOLD, P.L.L.C.

Scott A. Daniels

Scott A. Daniels

SAD:tac
Enclosure

1. A metal reinforcement for joining a first and a second adjacent pieces of metal at an angle, the metal reinforcement comprising:
a multi-planar support wall defining a volume formed by a bend in the support wall and circumscribed by at least a base edge, a top edge and a bottom edge; and
wherein the base edge is attached to a surface of the first of the two adjacent pieces of metal and the top edge and the bottom edge extend to an end portion attached to a surface of the second adjacent piece of metal.
2. The metal reinforcement as set forth in claim 1 wherein the multi-planar support wall further comprises a first corner attached to an intersection of the first and second pieces of metal.
3. The metal reinforcement as set forth in claim 2 wherein the multi-planar support wall further comprises a second corner also attached to the intersection of the first and second pieces of metal and spaced from the first corner.
4. The metal reinforcement as set forth in claim 1 wherein the volume defined by the multi-planar support wall decreases from the base edge of the support wall towards the end portion of the support wall.
5. The metal reinforcement as set forth in claim 1 wherein the multi-planar support wall is substantially one of triangular shaped, wedge shaped, pyramidal shaped and cone shaped.
6. The metal reinforcement as set forth in claim 1 wherein the multi-planar support wall comprises at least a first and a second non-planarly aligned wall sections having a substantially triangular shape.
7. The metal reinforcement as set forth in claim 6 wherein the multi-planar support wall is formed from a contiguous piece of steel provided with a bend between the first and second substantially triangular shaped wall sections.
8. The metal reinforcement as set forth in claim 1 wherein the end portion of the support wall is attached to the second piece of metal substantially horizontally spaced from and vertically lower than the attachment of the base portion of the support wall to the first piece of metal.

9. A materials moving blade for attachment to a vehicle comprising:
a main blade defined by first and second ends, a top edge, a bottom edge and front and back surfaces;
a first sidewall and a second sidewall attached to and extending substantially perpendicular from the respective first and second ends of the main blade;
a multi-planar support wall defining a volume formed by a bend in the support wall and circumscribed by at least a base edge, an upper edge and a lower edge; and
wherein the base edge of the multi-planar support is attached to the front surface of the main blade and the upper edge and the lower edge are attached to a surface of one of the first and second sidewalls.
10. The materials moving blade as set forth in claim 9 wherein the volume defined by the multi-planar support wall decreases from the base edge of the support wall towards an opposite end of the support wall.
11. The materials moving blade as set forth in claim 10 wherein the multi-planar support wall comprises at least a first and a second non-planarly aligned wall sections having a substantially triangular shape.
12. The materials moving blade as set forth in claim 11 wherein the multi-planar support wall is formed from a contiguous piece of steel provided with a bend between the first and second substantially triangular shaped wall sections.
13. The materials moving blade as set forth in claim 12 wherein the end portion of the support wall is attached to the second piece of metal horizontally spaced from and vertically lower than the attachment of the base portion of the support wall to the first piece of metal.
14. A metal reinforcement for joining a first and a second adjacent pieces of metal at an angle, the metal reinforcement comprising:
a wedge shaped multi-planar support wall defined by a volume decreasing from a larger base portion to a smaller end portion; and
wherein the base portion is attached to a surface of the first of the two adjacent pieces of metal and the smaller end portion is attached to a surface of the second adjacent piece of metal.
15. The metal reinforcement as set forth in claim 14 wherein the volume of the multi-planar wall is further defined by welding the multi-planar support wall to the respective surfaces of the first and the second adjacent pieces of metal.
16. The metal reinforcement as set forth in claim 14 wherein the multi-planar support wall comprises a corner formed between two adjacent wall sections of the metal reinforcement.

17. The metal reinforcement as set forth in claim 14 wherein the multi-planar support wall is formed from a contiguous piece of steel provided with at least a bend between adjacent wall sections of the support wall.

18. The metal reinforcement as set forth in claim 14 wherein the multi-planar support wall is formed from separate pieces of steel joined at an angle along mating edges to form adjacent wall sections of the support wall.

19. The metal reinforcement as set forth in claim 14 wherein the multi-planar support wall comprises at least a first and a second non-planarly aligned wall sections having a substantially triangular shape.

20. A metal reinforcement for joining a first and a second adjacent pieces of metal at an angle, the metal reinforcement comprising:

a multi-planar support wall having at least a first and a second substantially triangular shaped sections defining a volume decreasing from a larger base portion of the support wall to a smaller end portion of the support wall; and

wherein the base portion is attached to a surface of the first of the two adjacent pieces of metal and the end portion is attached to a surface of the second adjacent piece of metal.

21. The metal reinforcement as set forth in claim 20 wherein the multi-planar support wall is formed from a contiguous piece of steel provided with at least a bend between the first and second substantially triangular shaped sections.

22. The metal reinforcement as set forth in claim 21 wherein the end portion of the support wall is attached to the second piece of metal substantially horizontally spaced from and vertically lower than the attachment of the base portion of the support wall to the first piece of metal.

23. The metal reinforcement as set forth in claim 22 wherein the multi-planar support wall further comprises a first corner attached to an intersection of the first and second pieces of metal.

24. The metal reinforcement as set forth in claim 23 wherein the multi-planar support wall further comprises a second corner also attached to the intersection of the first and second pieces of metal and spaced from the first corner.

25 A method of making a metal reinforcement for joining a first and a second adjacent pieces of metal at an angle, the method comprising the steps of:

forming a multi-planar support wall delineating a volume circumscribed by at least a base edge, a top edge and a bottom edge;

attaching the base edge to a surface of the first of the two adjacent pieces of metal and attaching the top edge and the bottom edge to a surface of the second adjacent piece of metal.

26. The method of making a metal reinforcement as set forth in claim 25 further comprising the step of decreasing the volume of the support wall from a larger volume at the base edge to a smaller volume at an end portion spaced from the base edge.

27. The method of making a metal reinforcement as set forth in claim 25 further comprising the step of bending a contiguous piece of metal to form the multi-planar support wall having a plurality of non-planarly aligned triangular sections.

28. The method of making a metal reinforcement as set forth in claim 26 further comprising the step of attaching the end portion of the support wall to the second piece of metal substantially vertically lower than the attachment of the base edge of the support wall to the first piece of metal.

29. A materials moving blade for attachment to a vehicle comprising:

a main blade comprising first and second ends, a top edge, a bottom edge, and front and back surfaces;

a first and a second sidewall, each sidewall comprising a first sidewall end, a second sidewall end, a top edge and a bottom edge, the first sidewall end attached to and extending outward from the respective first and second ends of the main blade;

a first volumetric support extending from a base portion having a cross-sectional area connected to the front surface of the main blade to an end portion having a smaller cross-sectional area relative to the base portion connected to the first sidewall;

a second volumetric support extending from a base portion having a cross-sectional area connected to the front surface of the main blade to an end portion having a smaller cross-sectional area relative to the base portion connected to the second sidewall.

30. The materials moving blade in claim 29 wherein a width of the cross-sections of the base portions of the first and second volumetric supports is substantially smaller than a length of the respective first and second ends of the main blade.

31. The materials moving blade in claim 29 wherein the first and second volumetric supports extend at a downward angle from the base portion to the end portion relative to the top and bottom edges of the first and second sidewalls.

32. The materials moving blade in claim 29 wherein the first and second volumetric supports define an outer surface having the shape of one of a cone, a wedge, a tetrahedron and a cylinder

33. The materials moving blade in claim 32 wherein the outer surface of each of the first and second volumetric supports comprises a plurality of planar surfaces having the shape of one of a triangle, a trapezoid, a parallelogram, a rectangle, and a square.

34. The materials moving blade in claim 29 wherein the first and second volumetric supports are attached to the respective sidewalls and the ends of the volumetric supports extend substantially to near a corner of the respective sidewall defined by the second end and bottom edge of the sidewall.

35. The materials moving blade in claim 29 wherein the first and second volumetric supports are attached to the respective ends of the main blade substantially closer to the top edge of the main blade than the bottom edge.

36. A volumetric reinforcement support for a joint of a first and second sections of metal formed at an angle comprising:

a base portion having a cross-sectional area connected to a surface of the first section of metal;

a multiplanar body having a decreasing cross-sectional area extending away from the base portion and along a surface of the second section of metal;

an end portion having a smaller cross-section relative to the base portion connected to the surface of the second section of metal; and

wherein the volumetric reinforcement support is angled downward relative to a vertical alignment of the first and second sections of metal from the base portion connected to the surface of the first section of metal to the end portion connected to a surface of the second section of metal.

37. The volumetric reinforcement support as set forth in claim 36 wherein the first and second volumetric supports define an outer surface having the shape of one of a cone, a wedge, a tetrahedron and a cylinder.

38. The volumetric reinforcement support as set forth in claim 37 wherein the outer surface of each of the first and second volumetric supports comprises a plurality of planar surfaces having the shape of one of a triangle, a trapezoid, a parallelogram, a rectangle, and a square.